QUALCONN Connection Performance Database

This BP sponsored project was kicked off in April 2003 with the objective developing a casing and tubing connection performance database for well design, procurement, and operations. Connections represent the most common failure mode in well construction. The main focus of the project is the collection and analysis of $50 Million of reliability test data and the efficiently application of this knowledge to well construction. Experience in connection evaluation and database software design/operation ensure effective use of funds.

QUALCONN is based on testing that evaluates the ability of a connection to meet performance requirements under the worst possible conditions of parameter variability (material and dimensions) and environmental loading. Connection specifications are provided (drawing number, makeup, etc.) in QUALCONN so that the proper connection can be applied, and load and temperature limits of the connection are detailed for design and operations. Since QUALCONN addresses design performance, manufacturing quality, assembly, and operations aspects of connections, all the sources of failure are addressed.

QUALCONN Options: Cost, Schedule, Performance

Connections represent the dominant casing and tubing failure mode, yet connection performance is not specifically considered in most well design

⇒ Verification Performance- Temp, P_i, P_o, F
⇒ Thousands of connections ⇒ Right One!
⇒ Firm Design Performance Limits
⇒ Failure Limits (catastrophic)
⇒ Competitive bid: cost & schedule options
⇒ Purchase Quality Specifications/

QUALCONN: Do it ONCE, Do it RIGHT, Do it INDUSTRY WIDE!
The QUALCONN Team is Made up of

⇒ ISO 13679 Connection Test Delegates
⇒ ISO 10400 Pipe Performance Property Experts
⇒ Hecate Software: for critical software solutions required by the engineering, scientific, and research communities
⇒ Major Operators and Manufacturers
⇒ Tubing & Casing Design Experts
⇒ Finite Element Experts
⇒ Drilling, Completion, Production Operations Engineers
⇒ Quality & Procurement Experts
⇒ Reliability Engineers and inspectors

QUALCONN: All you need to know about connections
For Design, Procurement, Installation, & Operations

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